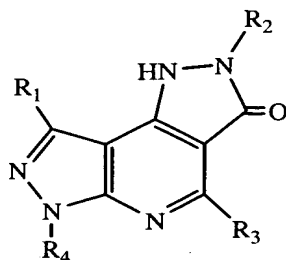


IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A compound of formula I



(I)

wherein

- R₁ and R₄ are each independently H, C₁-C₁₀alkyl optionally substituted with one or more halogen, hydroxy, C₁-C₄alkoxy, CO₂R₆, CONR₇R₈, C₃-C₇cycloalkyl or optionally substituted phenyl groups, or phenyl optionally substituted with one to three halogen, hydroxy, C₁-C₆haloalkyl, C₁-C₄alkoxy, CO₂R₉, NR₁₀R₁₁ or CN groups;
- R₂ is H, C₁-C₆alkyl optionally substituted with a phenyl, naphthyl or 5- to 10-membered heteroaryl ring system containing 1, 2 or 3 heteroatoms selected from N, O or S group each group optionally substituted with one to three C₁-C₆alkyl, C₁-C₆haloalkyl, C₁-C₄alkoxy, hydroxy, CHO, NO₂, CN, CO₂R₁₂ or NR₁₃R₁₄ groups,
- phenyl optionally substituted with one to three halogen, NO₂, CN, hydroxy, C₁-C₆alkyl, C₁-C₆haloalkyl, C₁-C₆alkoxy, phenyl, phenoxy, benzyl, benzyloxy, CO₂R₁₇, NR₁₈R₁₉ or CH₂CO₂R₂₀ groups,
- naphthyl optionally substituted with one to three halogen, NO₂, CN, hydroxy, C₁-C₆alkyl, C₁-C₆haloalkyl, C₁-C₆alkoxy, phenyl, phenoxy, benzyl, benzyloxy, CO₂R₁₇, NR₁₈R₁₉ or CH₂CO₂R₂₀ groups,
- C₅-C₇cycloheteroalkyl optionally substituted with one to three halogen, NO₂, CN, C₁-C₆alkyl, C₁-C₆haloalkyl, C₁-C₄alkoxy, CO₂R₁₇ or NR₁₈R₁₉ groups, or 5- to 10-membered heteroaryl ring system containing 1, 2 or 3 heteroatoms selected from N, O or S optionally substituted with one to three halogen,

NO₂, CN, C₁-C₆alkyl, C₁-C₆haloalkyl, C₁-C₄alkoxy, CO₂R₁₇ or NR₁₈R₁₉ groups;

R₃ is phenyl optionally substituted with one to three halogen, NO₂, CN, hydroxy, C₁-C₆alkyl, C₁-C₆alkylthio, C₁-C₆haloalkyl, C₁-C₆alkoxy, phenyl, phenoxy, benzyl, benzyloxy, SO_nR₂₆, SO₂NR₂₁R₂₂, CO₂R₂₃ or NR₂₄R₂₅ groups, C₅-C₇cycloheteroalkyl optionally substituted with one or more halogen, NO₂, CN, hydroxy, C₁-C₆alkyl, C₁-C₆alkylthio, C₁-C₆haloalkyl, C₁-C₆alkoxy, phenyl, phenoxy, benzyl, benzyloxy, SO_nR₂₆, SO₂NR₂₁R₂₂, CO₂R₂₃ or NR₂₄R₂₅ groups, or

5- to 10-membered heteroaryl ring system containing 1, 2 or 3 heteroatoms selected from N, O or S optionally substituted with one or more halogen, NO₂, CN, hydroxy, C₁-C₆alkyl, C₁-C₆alkylthio, C₁-C₆haloalkyl, C₁-C₆alkoxy, phenyl, phenoxy, benzyl, benzyloxy, SO_nR₂₆, SO₂NR₂₁R₂₂, CO₂R₂₃ or NR₂₄R₂₅ groups;

R₆, R₉, R₁₂, R₁₇, R₂₀ and R₂₆ are each independently H or a C₁-C₆alkyl, C₃-C₇cycloalkyl, C₁-C₆haloalkyl, phenyl, C₅-C₇cycloheteroalkyl or 5- to 10-membered heteroaryl ring system containing 1, 2 or 3 heteroatoms selected from N, O or S group each optionally substituted;

n is 0 or an integer of 1 or 2; and

R₇, R₈, R₁₀, R₁₁, R₁₃, R₁₄, R₁₈, R₁₉, R₂₁, R₂₂, R₂₄ and R₂₅ are each independently H or a C₁-C₆alkyl, C₃-C₇cycloalkyl, C₁-C₆haloalkyl, phenyl, C₅-C₇cycloheteroalkyl or 5- to 10-membered heteroaryl ring system containing 1, 2 or 3 heteroatoms selected from N, O or S group each optionally substituted or each of R₇ and R₈ or R₁₀ and R₁₁ or R₁₃ and R₁₄ or R₁₈ and R₁₉ or R₂₁ and R₂₂ or R₂₄ and R₂₅ may be taken together with the nitrogen atom to which they are attached to form a 5- to 7-membered ring optionally containing another heteroatom selected from O, N or S; or

~~the stereoisomers thereof or the pharmaceutically acceptable salts thereof.~~

2. (Currently amended) The compound according to claim 1 wherein R₂ is an optionally substituted phenyl or 5- to 10-membered heteroaryl ring system containing 1, 2 or 3 heteroatoms selected from N, O or S group.

3. (Original) The compound according to claim 1 wherein R₁ is H, C₁-C₃alkyl or an optionally substituted benzyl group.

4. (Currently Amended) The compound according to claim 1 wherein R₃ is a C₅-C₇cycloheteroalkyl, 5- to 10-membered heteroaryl ring system containing 1, 2 or 3

heteroatoms selected from N, O or S or phenyl group each optionally substituted with one or two halogen, CN, NO₂, CF₃, methoxy, carboxy or SOR₂₆ groups.

5. (Original) The compound according to claim 2 wherein R₄ is H or phenyl or C₁-C₄alkyl optionally substituted with one hydroxy or phenyl group.

6. (Original) The compound according to claim 2 wherein R₃ is a thienyl, pyridyl or phenyl group, each optionally substituted with one or two halogen, CN, NO₂, CF₃, methoxy, carboxy or SOCH₃ groups.

7. (Original) The compound according to claim 3 wherein R₂ is a phenyl group substituted with one or two halogen.

8. (Original) The compound according to claim 7 wherein R₃ is a phenyl group substituted with one NO₂ or CF₃ group.

9. (Original) The compound according to claim 8 wherein R₁ is H and R₄ is H or CH₃.

10. (Cancelled)

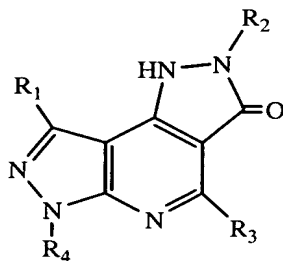
11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Currently Amended) A pharmaceutical composition which comprises a pharmaceutically acceptable carrier and an effective amount of a compound of formula I



(I)

wherein

R₁ and R₄ are each independently H, C₁-C₁₀alkyl optionally substituted with one or more halogen, hydroxy, C₁-C₄alkoxy, CO₂R₆, CONR₇R₈, C₃-C₇cycloalkyl or optionally substituted phenyl groups, or phenyl optionally substituted with one to three halogen, hydroxy, C₁-C₆haloalkyl, C₁-C₄alkoxy, CO₂R₉, NR₁₀R₁₁ or CN groups;

R₂ is H, C₁-C₆alkyl optionally substituted with a phenyl, naphthyl or 5- to 10-membered heteroaryl ring system containing 1, 2 or 3 heteroatoms selected from N, O or S group each group optionally substituted with one to three C₁-C₆alkyl, C₁-C₆haloalkyl, C₁-C₄alkoxy, hydroxy, CHO, NO₂, CN, CO₂R₁₂ or NR₁₃R₁₄ groups, phenyl optionally substituted with one to three halogen, NO₂, CN, hydroxy, C₁-C₆alkyl, C₁-C₆haloalkyl, C₁-C₆alkoxy, phenyl, phenoxy, benzyl, benzyloxy, CO₂R₁₇, NR₁₈R₁₉ or CH₂CO₂R₂₀ groups, naphthyl optionally substituted with one to three halogen, NO₂, CN, hydroxy, C₁-C₆alkyl, C₁-C₆haloalkyl, C₁-C₆alkoxy, phenyl, phenoxy, benzyl, benzyloxy, CO₂R₁₇, NR₁₈R₁₉ or CH₂CO₂R₂₀ groups, C₅-C₇cycloheteroalkyl optionally substituted with one to three halogen, NO₂, CN, C₁-C₆alkyl, C₁-C₆haloalkyl, C₁-C₄alkoxy, CO₂R₁₇ or NR₁₈R₁₉ groups, or 5- to 10-membered heteroaryl ring system containing 1, 2 or 3 heteroatoms selected from N, O or S optionally substituted with one to three halogen, NO₂, CN, C₁-C₆alkyl, C₁-C₆haloalkyl, C₁-C₄alkoxy, CO₂R₁₇ or NR₁₈R₁₉ groups;

R₃ is phenyl optionally substituted with one to three halogen, NO₂, CN, hydroxy, C₁-C₆alkyl, C₁-C₆alkylthio, C₁-C₆haloalkyl, C₁-C₆alkoxy, phenyl, phenoxy, benzyl, benzyloxy, SO_nR₂₆, SO₂NR₂₁R₂₂, CO₂R₂₃ or NR₂₄R₂₅ groups, C₅-C₇cycloheteroalkyl optionally substituted with one or more halogen, NO₂, CN, hydroxy, C₁-C₆alkyl, C₁-C₆alkylthio, C₁-C₆haloalkyl, C₁-C₆alkoxy, phenyl, phenoxy, benzyl, benzyloxy, SO_nR₂₆, SO₂NR₂₁R₂₂, CO₂R₂₃ or NR₂₄R₂₅ groups, or 5- to 10-membered heteroaryl ring system containing 1, 2 or 3 heteroatoms selected from N, O or S optionally substituted with one or more halogen, NO₂, CN, hydroxy, C₁-C₆alkyl, C₁-C₆alkylthio, C₁-C₆haloalkyl, C₁-C₆alkoxy, phenyl, phenoxy, benzyl, benzyloxy, SO_nR₂₆, SO₂NR₂₁R₂₂, CO₂R₂₃ or NR₂₄R₂₅ groups;

R₆, R₉, R₁₂, R₁₇, R₂₀ and R₂₆ are each independently H or a C₁-C₆alkyl, C₃-C₇cycloalkyl, C₁-C₆haloalkyl, phenyl, C₅-C₇cycloheteroalkyl or 5- to 10-membered heteroaryl ring system containing 1, 2 or 3 heteroatoms selected from N, O or S group each optionally substituted;

n is 0 or an integer of 1 or 2; and

R₇, R₈, R₁₀, R₁₁, R₁₃, R₁₄, R₁₈, R₁₉, R₂₁, R₂₂, R₂₄ and R₂₅ are each independently H or a C₁-C₆alkyl, C₃-C₇cycloalkyl, C₁-C₆haloalkyl, phenyl, C₅-C₇cycloheteroalkyl or 5- to 10-membered heteroaryl ring system containing 1, 2 or 3 heteroatoms selected from N, O or S group each optionally substituted or each of R₇ and R₈ or R₁₀ and R₁₁ or R₁₃ and R₁₄ or R₁₈ and R₁₉ or R₂₁ and R₂₂ or R₂₄ and R₂₅ may be taken together with the nitrogen atom to which they are attached to form a 5- to 7-membered ring optionally containing another heteroatom selected from O, N or S; or

~~the stereoisomers thereof or~~ the pharmaceutically acceptable salts thereof.

16. (Original) The composition according to claim 15 having a formula I compound wherein R₂ is an optionally substituted phenyl, thienyl or pyridyl group.

17. (Original) The composition according to claim 16 having a formula I compound wherein R₁ is H and R₄ is H or CH₃.

18. (Original) The composition according to claim 17 having a formula I compound wherein R₃ is a thienyl, pyridyl or phenyl group each optionally substituted with one or two halogen, CN, NO₂, CF₃, methoxy, carboxy or SOCH₃ groups.

19. (Original) The composition according to claim 18 having a formula I compound wherein R₂ is a phenyl group substituted with one or two halogen.

20. (Currently Amended) The composition according to claim 15 having a formula I compound selected from the group consisting of:

2-(3-fluorophenyl)-4-(3-nitrophenyl)-1,6-dihydrodipyrzolo[3,4-b:3',4'-d]pyridin-3(2H)-one;

2-(3-fluorophenyl)-6-methyl-4-(3-nitrophenyl)-1,6-dihydrodipyrzolo[3,4-b:3',4'-d]-pyridin-3(2H)-one;

2-(4-chlorophenyl)-6-methyl-4-[3-(trifluoromethyl)phenyl]-1,6-dihydrodipyrzolo-[3,4-b:3',4'-d]pyridin-3(2H)-one;

2-(4-chlorophenyl)-6-methyl-4-(3-fluorophenyl)-1,6-dihydrodipyrzolo-[3,4-b:3',4'-d]pyridin-3(2H)-one;

4-(5-bromo-3-pyridinyl)-6-methyl-3-[(trifluoromethyl)phenyl]-1,6-dihydrodipyrzolo-[3,4-b:3',4'-d]pyridin-3(2H)-one;

4-(5-bromo-3-pyridinyl)-3-(4-fluorophenyl)-6-methyl-1,6-dihydrodipyrzolo-[3,4-b:3',4'-d]pyridin-3(2H)-one;

methyl 3-[6-methyl-3-oxo-4-[3-(trifluoromethyl)phenyl]-3,6-dihydrodipyrzolo-[3,4-b:3',4'-d]pyridin-2(1H)-yl]benzoate;

2-chloro-5-[6-methyl-3-oxo-4-[3-(trifluoromethyl)phenyl]-3,6-dihydrodipyrzolo-

[3,4-b:3',4'-d]pyridin-2(1H)-yl}benzoic acid;
4-(3-bromophenyl)-6-methyl-2-(4-nitrophenyl)-1,6-dihydrodipyrzolo[3,4-b:3',4'-d]-pyridin-3(2H)-one;
4-[4-(3-bromophenyl)-6-methyl-3-oxo-3,6-dihydrodipyrzolo[3,4-b:3',4'-d]pyridin-2(1H)-yl]-2-chlorobenzoic acid;
methyl 2-fluoro-4-{6-methyl-3-oxo-4-[3-(trifluoromethyl)phenyl]-3,6-dihydrodipyrzolo-[3,4-b:3', 4'-d]pyridin-2-(1H)-yl}benzoate;
~~the stereoisomers thereof;~~
and the pharmaceutically acceptable salts thereof.